

Brio

User Guide

020-101213-05

CHRISTIE®

Brio

User Guide

020-101213-05

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The product is designed and manufactured with high-quality materials and components that can be recycled and reused. This  symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from regular waste. Please dispose of the product appropriately and according to local regulations. In the European Union, there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!

GENERAL WARRANTY STATEMENTS

For complete information about Christie's limited warranty, please contact your Christie dealer. In addition to the other limitations that may be specified in Christie's limited warranty, the warranty does not cover:

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- b. Problems or damage caused by combination of a Product with non-Christie equipment, such as distribution systems, cameras, video tape recorders, etc., or use of a Product with any non-Christie interface device.
- c. Problems or damage caused by misuse, improper power source, accident, fire, flood, lightning, earthquake or other natural disaster.
- d. Problems or damage caused by improper installation/alignment, or by equipment modification, if by other than Christie service personnel or a Christie authorized repair service provider.
- e. Problems or damage caused by use of a Product on a motion platform or other movable device where such Product has not been designed, modified or approved by Christie for such use.
- f. Problems or damage caused by use of a system in the presence of an oil-based fog machine.
- g. Failure due to normal wear and tear.

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Preventative maintenance is an important part of the continued and proper operation of your product. Please see the Maintenance section for specific maintenance items as they relate to your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, will void the warranty.

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Welcome to Brio

Brio is a presentation and collaboration solution that makes it easy to share and compare up to five presentations with others. With a few quick keystrokes or taps on your Mac, PC, iPad, or, wired or wireless device, you can share your audio, high definition video, whiteboards, and other information in a single room or with multiple people in multiple locations.

To access product information or software updates, register your Brio at <http://www.vistasystems.net/vista-support/pages/update-notifications.aspx>.

For support for this product, visit: <http://www.christiedigital.com/en-us/product-support/support-offices/Pages/default.aspx>

Quick Start

Here are a few references to help you get started.

Task	Reference	Page
Set up Brio and displays.	<i>Set up</i>	8
Power on Brio and connected displays.	<i>None</i>	
Connect to the Meeting Manager.	<i>Connect to the Meeting Manager</i>	12
Connect Brio to a network and set the Network Settings.	<i>Network Tab</i>	37
Optionally, set up the PtP option.	<i>Network Tab</i>	37
Connect sources.	Browse to Brio's IP address/connect	
Manage your presentation	<i>Presentation Area</i>	13
Change the administrator's password.	<i>Security Tab</i>	43

Set up

Required accessories:

- ✓ Two DVI cables to connect the displays to the Brio
- ✓ Speakers and related cables
- ✓ Ethernet cable to connect to a network or a wireless router
- ✓ A device with a Web browser



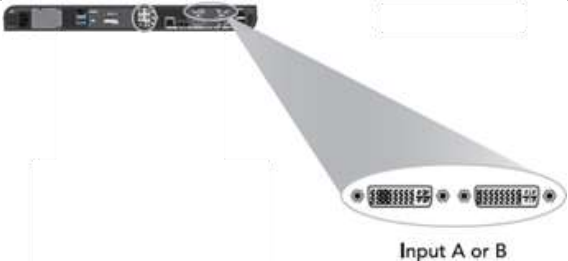
① Some connectors on the rear panel have been closed off with connector plugs. Do not remove these.

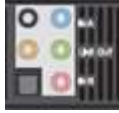


To ensure proper ventilation for the unit, ensure the wiring does not obstruct the air flow to or from the air vents.

1. Unpack Brio and inspect for damage.	If there is any physical damage to the Brio, contact your vendor for further instructions.	
2. Using the packing list, verify the contents of the shipment.	<p>Brio unit and accessory kit:</p> <ul style="list-style-type: none"> 1 Power cord—used to apply power to the unit. 1 USB flash drive—used to access the documentation. 4 Feet—self-adhesive non-skid rounds, applied when unit is not mounted (1 strip of 4). 	
3. Determine where you want to set up Brio. It can be located on a table, under a table, in an equipment rack, or behind a monitor. Refer to Mounting Options (page 45) for additional information.	Under table:	Rack mounted:
	Behind monitor (VESA 1):	Behind monitor (VESA 2):



<p>4. Using DVI cables, connect a monitor to the Output A connector; optionally, connect a second monitor to the Output B connector.</p> <ul style="list-style-type: none"> ① For optimum functionality, two HID compliant multi-touch monitors are recommended. ① If the monitors are not the same resolution, connect the monitor with the lower resolution to Output A. The resolution sent to Output B automatically matches Output A. Output EDID settings may be manually changed using the administrative settings. <p>5. To use whiteboarding, the monitor connected to Output A must be an HID compliant multi-touch monitor. The USB cable from the monitor must be connected to a USB port on the Brio unit prior to powering on Brio.</p>	 <p>Output A or B</p>
<p>6. Connect Brio to the network that will be used by meeting participants, or set up the PtP Option connection.</p>	<p>Refer to the Network Tab, page 37.</p>
<p>7. To power on Brio, plug it in and press the power switch. The LED turns solid green when Brio is ready. When powered on, the splash page provides tips for getting started.</p>	 <p>The splash screen displays the Christie Brio logo and the following information:</p> <ul style="list-style-type: none"> To get started <ul style="list-style-type: none"> 1. Join the same network as Brio <ul style="list-style-type: none"> Windows: Network: Vista_Super - Vista_Super1 Linux: Connected via network cable 2. Share your device <ul style="list-style-type: none"> For instructions on how to share your device, open a web browser on your device and enter http://192.168.27.222 Select your operating system and follow the directions to connect your device Header for message <ul style="list-style-type: none"> Message text: Unit Information <ul style="list-style-type: none"> Brio Model: Brio Series Brio Password: N/A System Information <ul style="list-style-type: none"> Join Network: Virtual Display Content: http://192.168.27.222 Message Timing: http://192.168.27.222 <p>Share more</p>
<p>8. To access the Meeting Manager, connect a device with an Internet browser to the Brio unit.</p> <p>9. Connect DVI sources to Brio using the Input A and Input B connectors.</p>	<p>Refer to Connect to the Meeting Manager (page 12).</p>  <p>Input A or B</p>

<p>10. Connect audio:</p> <ol style="list-style-type: none"> Connect the audio out cable for the DVI source connected to Input A to the blue In A port. Connect the audio out cable for the DVI source connected to Input B to the pink In B port. Connect the speaker to the green Line Out connector. <p>① The other ports are for future use.</p>	
<p>11. Connect wireless sources.</p>	<p>Refer to Connect to Brio, page 26.</p>

Set up PtP Connection (Optional)

The PtP connection requires the optional wireless adapter and a license for this feature.

When the Brio is set up with a PtP connection, it is isolated and meetings with other Brios are not supported.

To set up the connection:

1. Plug in the PtP adapter to a USB port on Brio.
2. In the PtP Option Settings on the Network tab on the System Settings page, assign a name and password to the SSID (refer to [Network Tab](#), page 37).

PtP Option Settings

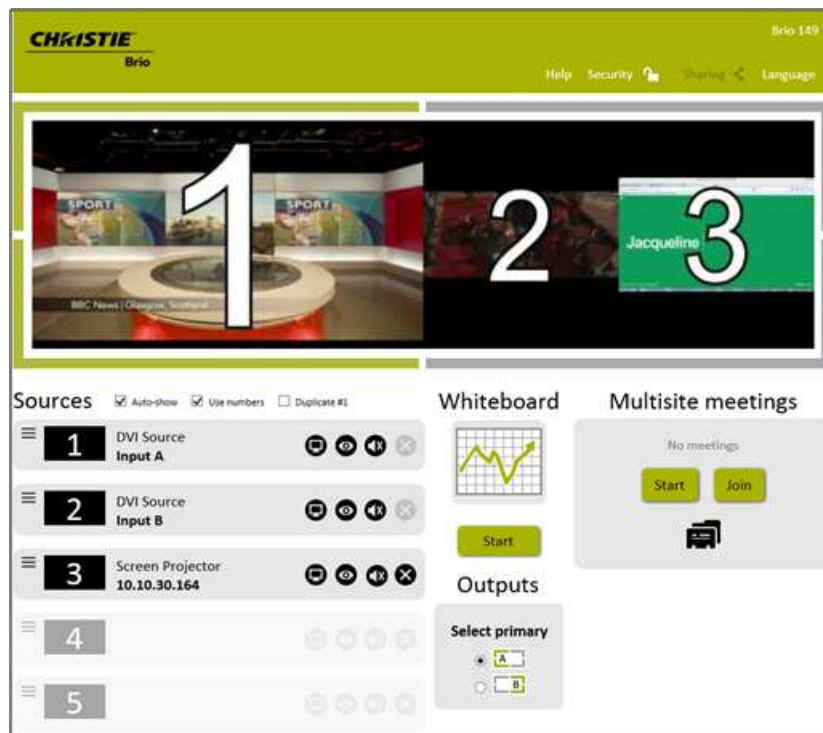
Name (SSID)

Password

Meeting Manager

The Meeting Manager is the user interface for the Brio. It is used to:

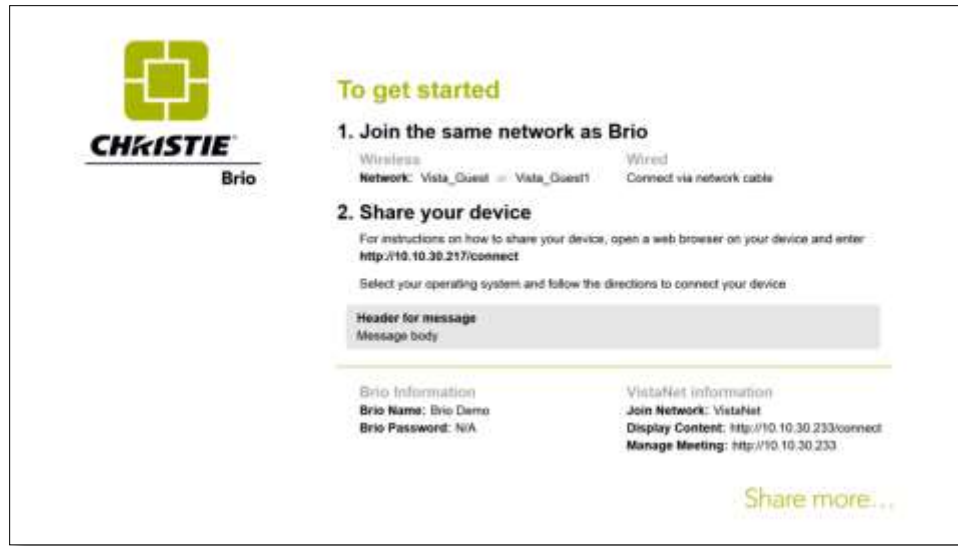
- Select the language used for the Meeting Manager.
- Organize presentations by rearranging the position of the sources on the outputs.
- Connect one Brio unit to other Brio units in a multisite meeting.
- Disconnect sources.
- Start and end the Brio whiteboard.
- Access the Web whiteboard.
- View the status of a current meeting.
- Select audio.
- Restart or shutdown the Brio.
- Set security.
- Get help for connecting sources.



The splash page is displayed when Brio is powered on.

The splash screen background image displays the IP address for the Brio, the current meeting password (if set), network information to help you connect to Brio, and an optional message (if defined).

The splash screen contents can be changed by an administrator.



To use the Meeting Manager, you must connect a device with a browser to Brio.

- ① Normal Web page conventions are used throughout the Meeting Manager. This document assumes you are familiar with these concepts.

Any of the following Web browsers can be used with Brio:

- Internet Explorer, version 9.0 and higher
- Firefox, version 14.0 and higher
- Chrome, version 21 and higher
- Safari, version 5 and higher

Connect to the Meeting Manager

You can connect to the Meeting Manager using a browser-capable device. Your device must be on the same network as Brio. If security is enabled for the Meeting Manager, a password is required to access the Meeting Manager. Refer to [Security](#) (page 14).

Wired Connection

1. Connect your browser-capable device to the same wired LAN and subnet as Brio.

From a browser, type the Brio IP address in your Web browser address field.

Wired Directly to Brio

1. Using an Ethernet switch, connect your browser-capable device to the Network 1 connector on the Brio.
2. From a browser, type the Brio IP address in your Web browser address field.

Wireless Connection

1. From your wireless device, connect to the same network and subnet as the Brio unit.

From a browser, type the Brio IP address in your Web browser address field.

PtP (point-to-point) Connection

1. Connect to the Brio WAP.

- ① You need the name of the WAP and the password.

Presentation Area

Up to five sources can be displayed in the presentation area in the Meeting Manager. This example shows three sources on a Brio with two output displays (A and B).



The presentation area displays sources as follows:

- When hosting a meeting, the content on Output A (the area outlined in green) is shared with the attendees that have one display connected to Brio. If the attendees have two displays connected to their Brio, all the content is shared.
- Sources can be moved to different positions in the presentation area by reordering the sources in your source list.
- When the whiteboard is active, the source displayed on Output A is moved to the Output B (if two outputs are connected).



When the whiteboard is started, #1 is shifted to the right

- By default, the display connected to the Output A connector is your primary output. You can change this to output B by selecting Output B as your primary output.
- You can preview sources before displaying them in the presentation area by clearing the **Auto-show** check box. Select the preview button (👁) associated with the source to view a thumbnail preview.

Security

Securing the Meeting Manager prevents unauthorized devices from connecting to Brio and it also limits access to the interface page.

1. To secure access to the Meeting Manager, click **Security**.
2. Type a password (a minimum of four characters) and enter the duration to secure the Meeting Manager, and then click **Start**.
The Meeting Manager is secured and a timer is activated for the duration.
 - ① The Duration field is unavailable if the **Enable persistent security** check box is selected on the System Settings page.
3. If you secure the Meeting Manager, you must share this password with users who need to view the Meeting Manager or share sources in a meeting. When attempts are made to view the Meeting Manager or connect sources, users are prompted for the password.
4. To reset the password, click **Security** and type a password.
Once secured with a password, to end security click **End Security**.

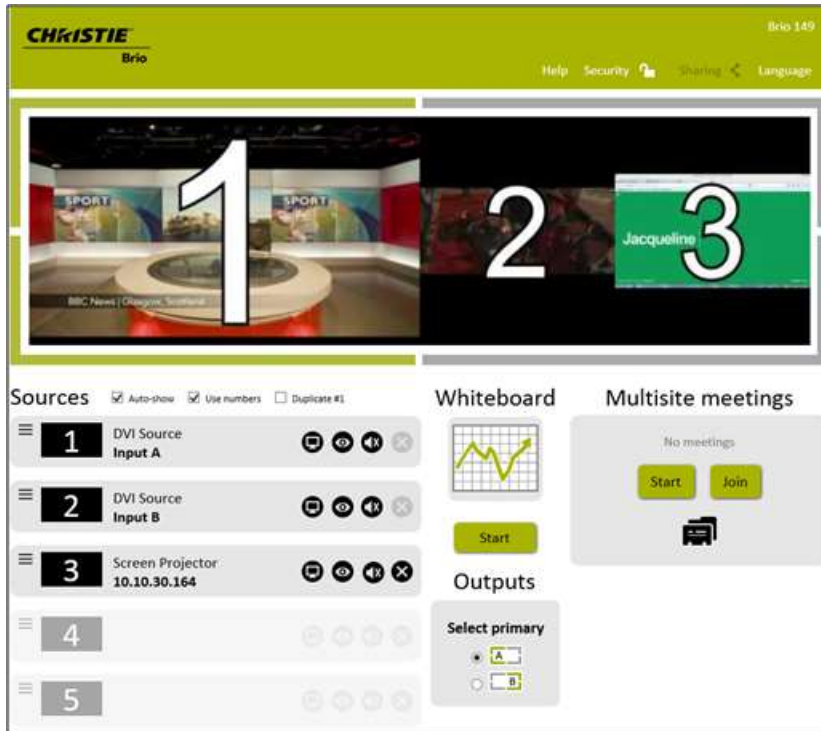


 A screenshot of the 'Start Security' dialog box. It has a green header bar with the title 'Start Security' and a close button (X). The dialog contains three input fields: 'Password', 'Re-enter password', and 'Duration' (set to '1:00' with a dropdown arrow). Below the 'Duration' field is the text '(i.e. hh:mm)'. At the bottom are two green buttons: 'Cancel' and 'Start'.


 A screenshot of the 'Login' dialog box. It has a green header bar with the title 'Login'. The main text says: 'This Brio web page is password protected. Please enter the password.' Below this is a 'Password' input field and a 'Login' button.


 A screenshot of the 'Start Security' dialog box, identical to the one in step 2, but with an additional 'End Security' button highlighted with a red rectangular box at the bottom center.

Source List




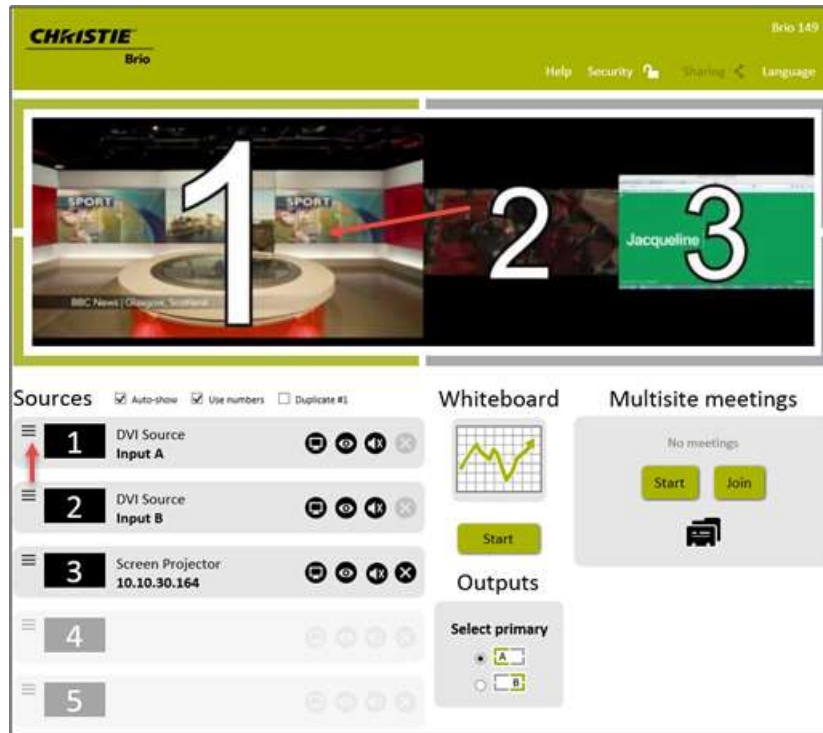
From the source list, you can rearrange the sources on the presentation area and use the buttons and check boxes as follows:

Auto-show	<input checked="" type="checkbox"/> Auto-show	Select to automatically show the source in the presentation area when the source is connected to Brio. Clear to disable automatic preview. If disabled, use the preview button to preview the source.
Use numbers	<input checked="" type="checkbox"/> Use numbers	Select to display the source numbers on the sources in the presentation area. Clear to remove the source numbers from the sources in the presentation area.
Duplicate	<input checked="" type="checkbox"/> Duplicate #1	Select to duplicate source #1 on both outputs. <ul style="list-style-type: none"> When this feature is active, the Brio whiteboard is unavailable. If the source is hidden (using the show/hide button), this feature is unavailable. If this feature is enabled and #1 source is hidden after the feature is enabled, the background for the Brio is displayed.
Show/Hide		Toggle to display the source on the presentation area or remove it from the presentation area.
Preview		Previews the source in a pop-up on the Meeting Manager web page (not in the presentation area).
Audio		<p>Toggle to turn audio on or off for a source. Audio is automatically turned off when a source is connected. Volume is controlled at the source (or at your sound system).</p> <p>When attending a multisite meeting, mute the audio from your sources if you are not the presenter.</p> <p>① If you are presenting (sharing your presentation area) and mute your audio, audio is muted for all meeting attendees.</p>

Disconnect		Disconnects the source from Brio and removes the source from the list. ① DVI sources have to be physically disconnected.
------------	---	---

Reorder the Sources



Use the Row Reorder () icon to drag and drop the sources within the source list and rearrange them on the presentation area. The position of the source within the list determines its location on the presentation area. If you have **Use numbers** selected, the source number is displayed in the presentation area. These numbers are useful when organizing your presentation.



Preview your Sources

When sources are connected to Brio, they are automatically displayed on the presentation area unless you have elected to preview them first.

To preview sources before they are displayed in the presentation area:

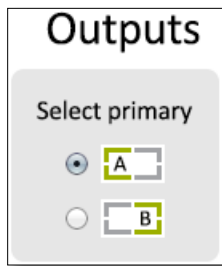
Clear the Auto-show check box.	<input type="checkbox"/> Auto-show
Connect a source to Brio.	Refer to Connect to Brio , page 26.
Click and hold the Preview button.	
Click the Show/Hide button to display the source on the presentation area.	

Select your Primary Output

This option is not available when only one output display is connected to Brio.

Depending on your preferences, you can select the display connected to Output A or Output B as your primary output. The primary output displays the #1 source from the source list. The other display tiles any additional sources.

To change your primary output, use the **Select primary** buttons.



- ① The whiteboard is always displayed on the left in the presentation area regardless of the setting for the primary output.

Meetings

You can start a meeting with local attendees or a multisite meeting (license required) with other Brio locations. Whoever starts the meeting is the meeting host. In a multisite meeting, the host can add or remove meeting attendees and ask attendees to be meeting presenters.

Help

Select **Help** on the main page to access the **How to connect** page, access the user guide, restart, or shutdown. The restart option reboots Brio and the shutdown option powers off Brio.

- ① Click Help again to dismiss the Help list.

Address Book

Your address book contains the contact information for other Brio units. You use this contact information to invite attendees to meetings.

Add an address to your address book

Click **Address Book**.



Click **Add**.

① Click **Name** or **Location** to sort the list.



Type a name, location, and IP address for the Brio unit and click **Save**.

① Names are case sensitive.



Delete an address from your address book

Click **Address Book**.



Select the address you want to delete.



Select **Delete**.

Start a Meeting

When you start a meeting, you are the presenter until you give another attendee permission to present their presentation. The presenter's whiteboard is shared with all meeting attendees.






To invite other Brios to a multisite meeting, click **Start**.

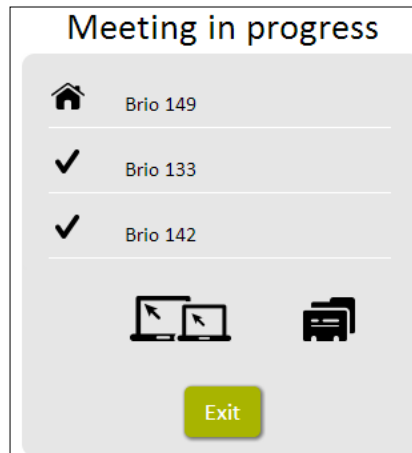
Select the check box associated with the desired attendees and click **Start**.

① Click **Name** or **Location** to sort the list.

Name	Location
<input checked="" type="checkbox"/> Brio 133	lab
<input type="checkbox"/> Brio 134	lab
<input type="checkbox"/> Brio 135	lab
<input type="checkbox"/> Brio 136	lab
<input type="checkbox"/> Brio 137	lab
<input type="checkbox"/> Brio 138	lab
<input type="checkbox"/> Brio 141	lab
<input type="checkbox"/> Brio 142	lab

The status for the meeting is updated as responses are received.

Host of meeting	
Attendee accepted invite	
Attendee declined invite	
Attendee hasn't responded	
Attendee is currently presenting (displaying their presentation area) in the meeting.	



To add or remove attendees, select the address book icon.




To ask an attendee to be a presenter, select the transfer icon.



Join a Meeting

When you are invited to a meeting, you receive a meeting request through the Brio Meeting Manager. You can join the meeting or decline the request. You can also join a meeting by requesting to join.

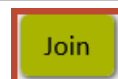
Prior to joining a meeting, save your whiteboard sketches to load them another time. When you join the meeting, the presenter's whiteboard is shared with all meeting attendees. When attending a meeting, the whiteboard is a collaborative whiteboard. All attendees can contribute to the whiteboard by sketching, loading a saved sketch , undo/redo changes to the sketch, etc.

When the meeting is ended, all attendees have a copy of the sketch from the meeting.

To join a meeting after you have received an invitation, click **Yes** to accept the invitation.




To join a meeting in progress without receiving an invitation, click **Join**, select the Brio hosting the meeting you want to join, click **Join Meeting**.





Share Presentation Area

When you are hosting a meeting, you can invite another Brio to be a presenter and share its presentation area. If you are attending a meeting, you can send a request to the host asking to be the presenter and share your presentation area.

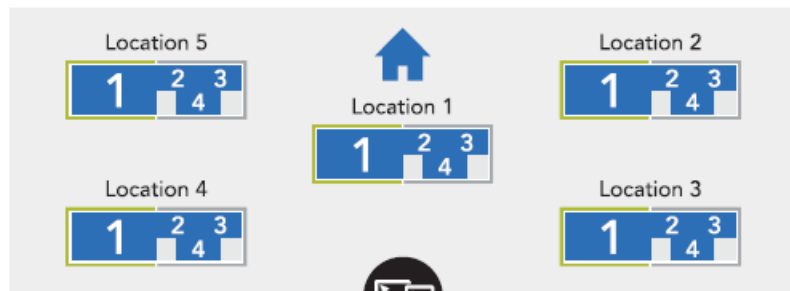
The host manages the sharing of the presentation area with other attendees. The attendee who is presenting is highlighted in the Meeting in Progress list with the presenter icon . The following illustrates sharing the presentation area.

Transferring the Presentation Area

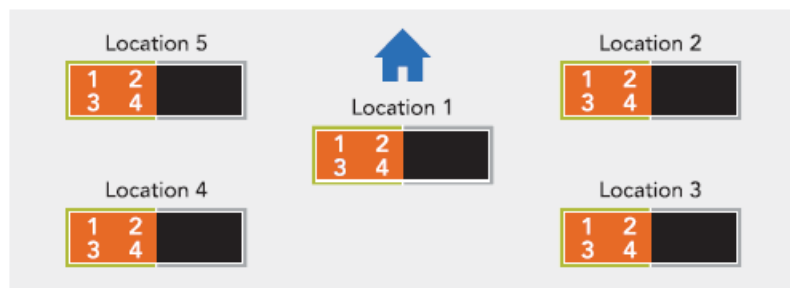
Location 1 starts meeting




Locations join meeting



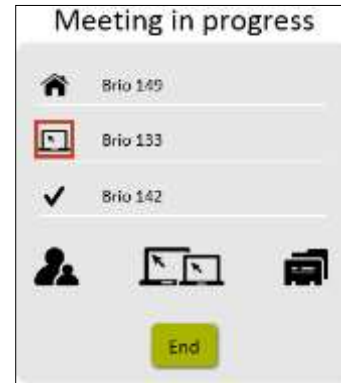
Location 2 shares Presentation Area




Attendee Requests to be Presenter


To send a request to the meeting host to ask to be the presenter, click . Respond to the confirmation prompt.

If the host accepts your request, your presentation area is shared with the meeting attendees.



If you want to quit presenting. Click  and respond **OK** to the confirmation dialog. The meeting attendees then see the presentation area of the meeting host.

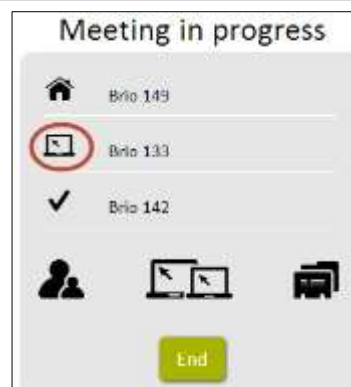
Host Requests an Attendee to be Presenter

To send a request to an attendee to be the presenter, click .


The host selects an attendee from the list of meeting attendees, and then clicks **Send**.

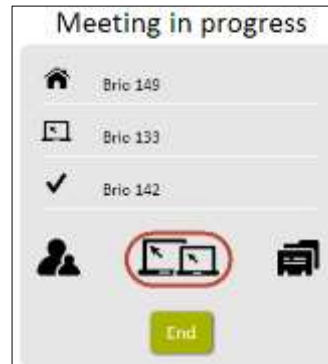


The attendee receives a request from the host. If the attendee accepts the request, their presentation area is shared with the other attendees including the host.



Host Requests to be Presenter

If the host wants to share the presentation area or end sharing by another presenter, the host selects .



The host selects its name from the address book, and then selects **Send**.

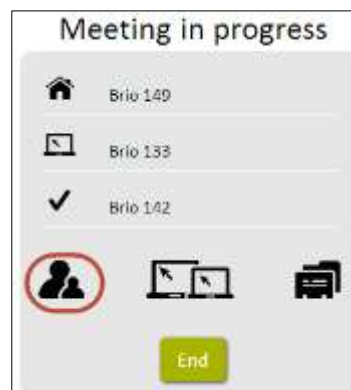
The host's presentation area is shared.



Update Meeting Attendees

If you are hosting a meeting, you can invite additional attendees or remove existing attendees.

To update the attendees, select .



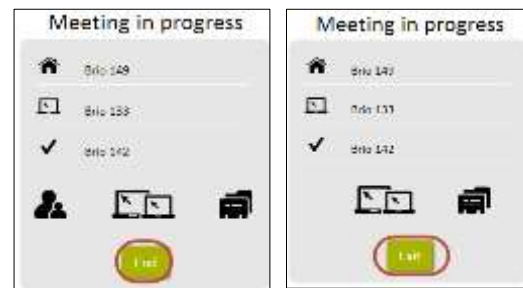
Select the check box associated with the additional attendees you want to invite and/or clear the check box associated with the attendees you want to remove, and then click **Update**. Review the confirmation and confirm or make additional changes.



End/Exit a Meeting

To end the meeting you are hosting, click **End**.
If you are the host, the meeting is ended for all attendees.

To quit a meeting you are attending, click **Exit**.
If you are attending the meeting, you are no longer connected to the meeting, but the meeting will continue.



Start Collaborating

Add the sources for your presentation and start collaborating.

Connect to Brio

The steps to connect a device to Brio depend on the type of device you are connecting. Once a device is connected, it is displayed in the source list.

- ① Since Brio supports various operating systems and devices manufactured by multiple manufacturers, also refer to your device's user documentation.

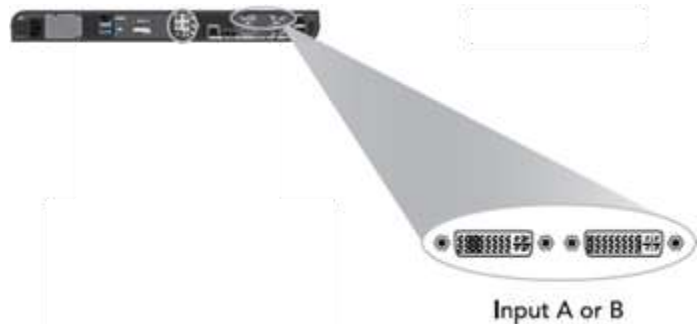
For help connecting sources to Brio, select **How to connect** from **Help** or type **Brio's IP address/connect** (e.g., 10.10.30.149/connect) in your Web browser address field. The **How to connect** page provides help for connecting sources using various operating systems. To get help for your device, select the appropriate button (Windows 7, Windows 8, OSX, or Android). To return to the main page, select **Brio Home**.

If you have trouble connecting, you can use the **Port Authority** tool to verify the settings on your personal device. Refer to [Port Authority Tool](#) (page 32).



Connect DVI Sources

Connect DVI sources to the Input A or Input B connectors.



Connect the other end of the cable to the source.

Connect power to the source.

Windows OS Sources

To connect Windows-based sources on your network to Brio, connect using Brio Screen Projector or Microsoft Network Projector.

Connect with Brio Screen Projector (Windows 7 and 8)

1. Download **Brio Screen Projector** from the How to Connect page.

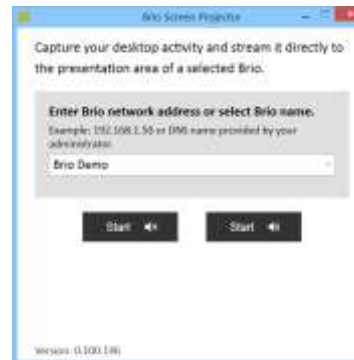
① Only users with administrative privileges can install Brio Screen Projector.




2. Select **BrioScreenProjectorSetup.exe** to launch the install wizard, and then follow the prompts.



3. Launch Brio Screen Projector.



4. Type the IP address or the DNS (Domain Name System) name (if provided by your administrator) of the Brio you want to connect to, and then select

Start  to start with audio muted, or

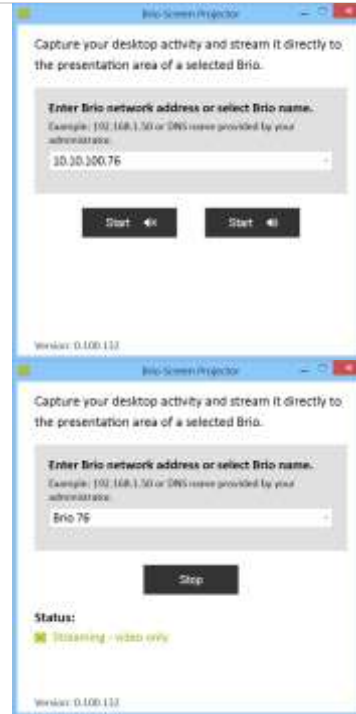
select **Start**  to start with audio.

When started, the Brio name is displayed in this field and in the drop down list.

You can use the drop down list to select a Brio after entering its IP address once.

If you started Brio Screen Projector with audio muted, the dialog is minimized; if you started with audio, use the slider bar to adjust the volume.

- ① Make sure audio is enabled for this source in the Meeting Manager.



5. To disconnect, select **Stop stream**.



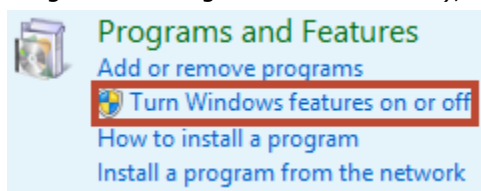
Network Projection

Network Projection is provided with Windows. You may need to activate it.

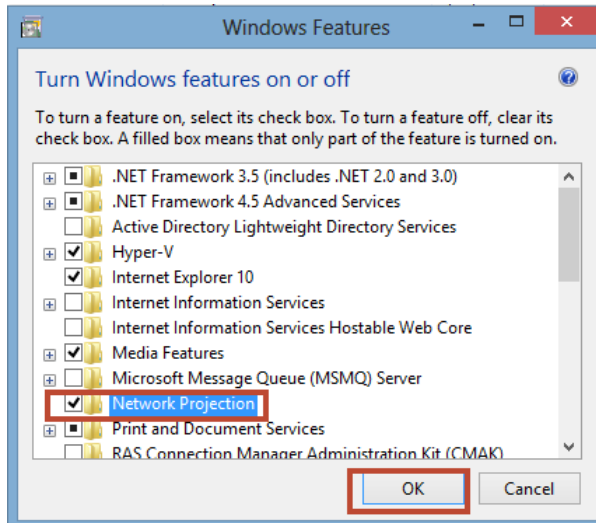
- ① To use Network Projection, you must allow an exception for network projection to your Windows firewall or turn off your firewall.
- ① Only users with administrative privileges can activate Network Projection.

Activating Network Projection for Windows 8 and 8.1 OS

1. In the Windows control panel, in the Programs and Features section (Control Panel → Programs → Programs and Features), click **Turn Windows features on or off**.



2. Scroll to **Network Projection**, select it, and click **OK**.



① For easy access, right click on the file name and choose **pin to taskbar**.

Activating Network Projection for Windows 7 OS

1. Click the **Start** button.
2. In the search box, type **Connect to a Network Projector**.
3. In the list of results, click **Connect to a Network Projector**.

Connect with Network Projector (Windows 7, 8, and 8.1)

1. With your device connected to the local network with a wired or wireless Ethernet connection, launch Windows Network Projector on the source you want to connect to Brio.
2. Select **Enter the projector network address**.
 - ① If your network supports multicasting, you could search for the Brio you want to connect to. The Brio units are listed by their name.

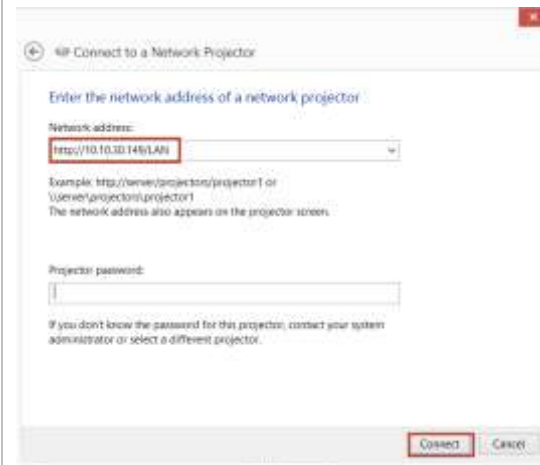


3. Type the network projector address you want to connect to using the following format:

http://IP_address/LAN

(where *IP address* is the IP address of the Brio you want to connect to)

4. Optionally, if security has been set on the Brio, type the password that was used to secure the Brio.
5. Select **Connect**.



Apple

Wired connection:


1. Connect your Apple device to Brio using an Apple Digital AV adapter and a cable with a DVI connector.
 - ① The Apple adapter may vary for different versions of the Apple devices. If you have problems connecting, check if your device requires a dual-link DVI connector.
2. Connect the DVI connector to the Input A or Input B connector on Brio.



Wireless connection:

1. Connect your iOS or OS X device to the same Wi-Fi network as Brio.
2. Turn on AirPlay as follows:
 - ① The AirPlay icon is not visible in the iOS interface unless an AirPlay compatible receiver such as Brio is present on the same network.
 - ② To use AirPlay Mirroring, you need the following:
 - iPhone 4s or later
 - iPad 2 or later
 - iPad mini or later
 - iPod touch (5th generation)
 - Apple TV (2nd or 3rd generation)


AirPlay for iOS 7

- From the main Home screen, swipe up from the bottom of the screen to access the Control Center.
- Tap the AirPlay icon .
- Tap your Brio to activate AirPlay.
- Optionally, toggle the Mirroring slider to **ON** (green) to turn on mirroring.
- When finished using AirPlay:
 - For iPhones, tap **Done** and swipe down to close the Control Center.
 - For iPads, tap anywhere outside the AirPlay device list, and then swipe down to close the Control Center.



AirPlay for iOS 6

Double tap the home button to open the multitasking bar.

Swipe the multitasking bar twice from left to right until you see the AirPlay icon .

Tap the AirPlay icon.

Select your Brio to activate AirPlay.

Optionally, toggle the Mirroring slider to **ON** to turn on mirroring.

Mirroring is not available when your device is connected to a video adapter.


When finished using AirPlay:

For iPhones, tap **Done** and tap the home button to close the multitasking bar.

For iPads, tap anywhere outside the AirPlay device list, and then tap the home button to close the multitasking bar.



AirPlay for OS X (Mountain Lion and up)

- a. Select the AirPlay icon  from the menu bar to share your screen; or select the AirPlay icon on iTunes to share your iTunes media.
 - ① Apple does not support desktop mirroring when iTunes is open.
- b. Select your Brio to activate AirPlay.
- c. Optionally, to activate mirroring check **Mirror Built-in Display**.
- d. When finished using AirPlay, select **Disconnect AirPlay Display**.



Android

Wireless connection:

1. Connect a Miracast receiver to Input A or Input B.
2. Connect your Android device to the Miracast receiver using the method for your device.

Port Authority Tool

Port Authority can be used to determine if a network has multicasting enabled and if the ports Network Projector uses are open. If Network Projector cannot find a Brio on the network, Port Authority can be used for troubleshooting purposes.

You can download this tool from the Windows 7 or Windows 8 buttons on the How to Connect page (refer to [Connect to Brio](#), page 26).

For additional details about this tool, refer to [Port Authority](#), page 58.

Whiteboarding

A HID compliant multi-touch panel is required for the Brio whiteboard in the Meeting Manager. The panel should be connected to Output A through DVI and to a USB port on Brio prior to operation.

To join an active whiteboard session from any personal device, the personal device must have a mouse or be a touch-enabled device.

Brio Whiteboarding

From the Meeting Manager, click **Start** to begin a whiteboard session. The whiteboard session is started on your touch screen.

When attending a meeting, the whiteboard is shared with all attendees and the attendees can interact with the whiteboard.



Web Whiteboarding

When you want to collaborate with a whiteboard session on your personal device, from the Brio Meeting Manager, select **Join**.

- ① If a whiteboard session isn't started, select **Start** and then **Join**.



Sketching

To start sketching

Select the pen icon.



Select the desired pen thickness.





Select the desired color.





To erase from the current sketch on the whiteboard:


Select the eraser icon.



To load a previously saved sketch or a background image (.gif, .bmp, .jpeg, .jpg, or .png) from a flash drive connected to Brio, tap  on the Brio whiteboard, select a sketch, and then tap .

- ① Background image files should be no larger than 4 MB.
- ① To load a sketch or background image from a flash drive, the sketch cannot be in a folder.

If you have more than one page of sketches saved, use the  and  buttons to view additional sketches.

From Web whiteboard, select  and load the sketch using the method for your personal device.


- ① Only presenters (sharing presentation area) can load sketches for the Web whiteboard.



To save your whiteboard, from the Brio whiteboard, tap .


If you have a flash drive connected to Brio, your sketch is saved on the flash drive.


If you don't have a flash drive connected to Brio, the sketch is saved to local memory in the Brio unit.


From a personal device, select  and save the sketch using the method for your personal device.

To clear the whiteboard, tap .

To delete a saved sketch (Brio whiteboard only):

1. Tap .
2. Select the sketch you want to delete.
3. Tap **Ok**.


To undo the last action, select .


To redo the previously undone action, select .

To zoom in, tap  (Brio whiteboard only).

To zoom out, tap  (Brio whiteboard only).

To end your Brio whiteboard session, select **End**.

- ① To save your sketch, tap  first.

To end your web whiteboard session, select .

Administration

The administrator uses a secure page to administer Brio.

- ① Changes to the settings should not be made when the Brio is attending a meeting. Some changes require a system restart.

System Settings Page

The System Settings page is accessed by typing the following in the address bar of your browser:
IP address/admin (e.g., 10.10.30.143/admin)

The default password for this page is **admin**. As an administrator, you should change this password for security purposes.

The System Settings page is used by administrators to do the following:

- Change the default administrator password.
- Set the system settings.
- Set the splash screen settings.
- Update software license or software version.
- Set the security settings.
- Select the language for the System Settings page and the Meeting Manager.

General Tab

Use this tab to view or set general settings for Brio, and optionally the PtP settings. Additionally, you can set the settings for the splash screen.

CHKISTIE

Brio

System Settings

▼ Language: English

General
Network
Software
Security

General Settings

Name

Brio 064

Your serial # 7BCE84

Location

Lab rack

Display Language ⓘ

English ▼

Output Resolution

Auto Detect ▼

Current resolution: 1920 x 1080

Background Settings

Background Selector

☒ Default ☐ Image ☐ Color

Splash Screen Information

Primary network displayed on splash screen

☒ Network 1 ☐ Network 2

Headline

News 2

Message

Network 1

SSID Name 1

SSID Name 2

Network Password

Network 2

SSID Name 1

SSID Name 2

Network Password

Cancel
Save

Language	
Language	Selects the language for the System Settings page and the Meeting Manager.
General Settings	
Name	User-defined name (up to 20 characters) for Brio.
Serial Number	Displays the serial number assigned during manufacturing.
Location	User-defined location for the unit.
Display language	Sets the language displayed on the splash screen and the Brio whiteboard. ⓘ This language can be different than the language for the Meeting Manager.
Output Resolution	Applies the selected resolution to the outputs. The default is Auto Detect. When Auto Detect is selected, the current resolution is displayed below this field.
Number of Outputs	Specifies the number of connected outputs if the output resolution is not set to Auto Detect. The selected resolution is used for all connected outputs. This field is hidden if the Output Resolution is set to Auto Detect.

Background Settings	
Background selector: Default	Displays the splash screen that provides getting started information in the selected language. Since this information is most useful at startup, when you add more than two sources the image is hidden and a black background is displayed. The splash screen is redisplayed when you remove the sources.
Background selector: Image	Sets a background image for the presentation area and the displays connected to the Brio. Valid file formats are .gif, .bmp, .jpeg, .jpg, or .png. When using two displays, the background image should match the combined resolution of the two displays. ① Background image files should be no larger than 4 MB.
Background selector: Color	Sets a background color for the presentation area and the displays connected to the Brio.
Primary network displayed on splash screen	Sets the primary network (Network 1 or Network 2) displayed on the splash screen. The information associated with this network is displayed to help users connect to Brio.
Headline	Sets a title for administrator message (up to 45 characters) that is displayed on the splash page.
Message	Sets the user-defined message (up to 4 lines of 79 characters). This message is displayed on the splash page when the splash screen background is active.
Network 1 SSID Name 1 SSID Name 2	Identifies the SSID (up to 15 characters) of the network used to connect devices to Brio. If your network has two names, complete the SSID Name 2 field. These names are displayed on the Splash Screen.
Network 1 Network Password	Identifies the password for the SSID. This password is displayed on the Splash Screen.

Network Tab

Use this tab to view or set network settings for Brio. The fields on this page differ for the Adaptive streaming, Basic, and Advanced settings.

The settings associated with the network 1 connector are set on the Network 1 tab. The settings associated with the network 2 connector are set on the Network 2 tab.

CHKISTIE

Brio

System Settings

GeneralNetworkSoftwareSecurity

▼ Language: English

Network Settings

LAN Settings

Network 1Network 2

☒ Manual☐ DHCP (disables manual settings)

IPv4 address

10.10.100.64

Subnet mask

255.255.255.0

MAC Address: 70-54-D2-7B-CE-84

Hostname: BRIO-7BCE84

Default gateway

10.10.100.1

DNS server

10.10.40.18

Network Performance Settings

MeetingBrio Screen Projector

☒ Adaptive streaming☐ Basic☐ Advanced

PtP Option Settings

Name [SSID]

test 1111

Password

Cancel

Save

▼ Language: English

GeneralNetworkSoftwareSecurity

System Settings

Network Settings

LAN Settings

Network 1Network 2

☒ Manual

☐ DHCP (disables manual settings)

IPv4 address

10.10.100.64

Subnet mask

255.255.255.0

Default gateway

10.10.100.1

DNS server

10.10.40.18

MAC Address: 70-54-D2-7B-CE-84

Hostname: BRIO-7BCE84

Network Performance Settings

MeetingBrio Screen Projector

☐ Adaptive streaming

☒ Basic

☐ Advanced

Performance vs. Quality

Performance

Quality

PtP Option Settings

Name [SSID]

Test 1111

Password

CancelSave

Network Settings

LAN Settings

Network 1 Network 2

☒ Manual ☐ DHCP (disables manual settings)

IPv4 address

10.10.100.64

Default gateway

10.10.100.1

Subnet mask

255.255.255.0

DNS server

10.10.40.18

MAC Address: 70-54-D2-7B-CE-84

Hostname: BRIO-7BCE84

PtP Option Settings

Name (SSID)

test 1111

Password

Network Performance Settings

Meeting Brio Screen Projector

☐ Adaptive streaming

☐ Basic

☒ Advanced

Encode Bit Rate

☐ 1024

☐ 2048

☒ 3072

☐ 4096

MTU Size

☒ 1250

☐ 1300

☐ 1350

☐ 1400

☐ 1450

QoS

Off

Frame Rate

☐ 15

☒ 30

Protocol

☒ UDP

☐ TCP

Cancel

Save

Network Settings

LAN Settings

Manual	Enables input of the LAN (Local Area Network) settings.
DHCP	<p>Uses DHCP (Dynamic Host Configuration Protocol) to obtain the LAN settings automatically.</p> <p>① To avoid changes to the IP addresses, use static IP addresses. This also prevents having to update your address book due to changes in IP addresses.</p>
IPv4 address	<p>The IP (Internet Protocol) address for the unit (version 4). The valid format is: nnn.nnn.nnn.nnn.</p> <p>The factory default is set to DHCP. If DHCP is not available, the factory default IP address is 192.168.1.100. For units with the PtP option, the default address is 192.168.173.1.</p>
Default Gateway	The node on the network that the network software uses when an IP address does not match any other routes in the routing table.
Subnet Mask	The subnet mask for the network address.
DNS Server	The DNS server for resolving domain names.
MAC Address	Displays the MAC address for Brio.

Hostname	Displays the hostname for Brio.	
PtP Option Settings		
Name (SSID)	Sets the name for the optional Brio wireless adapter. This adapter can be used to connect wireless devices to Brio. This feature requires a PtP license.	
Password	Sets the password for the optional Brio wireless adapter. The password must be at least 8 characters.	
Network Performance Settings		
Meeting Tab		
Adaptive Streaming	Automatically detects the optimum settings for a meeting based on current network performance. This is the default setting.	
Basic	Use the slider bar to adjust your network settings for better performance during multisite meetings. A lower setting reduces video quality and improves the network performance.	
Advanced	Manually select the network settings to optimize performance during multisite meetings.	
	Encode Bit Rate	Bit rate per second for encoding sources from the presenter during meetings. Valid options are: 1024, 2048, 3072, and 4096. The default is 2048.
	Frame Rate	Frames displayed per second during a meeting. Valid options are: 15 or 30. The default value is 15.
	MTU Size	Maximum Transmission Unit size, which is the maximum size (in bytes) for a single data packet on the network. Larger packets decrease the bit rate. Valid values are: 1250, 1300, 1350, 1400, and 1450. Default value is 1250.
	QoS	Quality of Service setting for the Brio using DSCP (Diffserv codepoint) encodings settings. Default value is off.
	Protocol	Protocol used by attendees (audience viewing a presentation presented by another Brio) during multisite meetings: UDP (User Datagram Protocol) or TCP (Transmission Control Protocol). UDP increases speed but can cause pixilation. TCP can increase reliability. UDP is the default. Note: The setting for each Brio only impacts the associated outputs on that Brio.
Brio Screen Projector Tab		
Encode Bit Rate	Bit rate per second for encoding Brio Screen Projector sources during meetings. Valid options are: 1024, 2048, 3072, and 4096. The default is 2048.	
Protocol	Protocol used for Brio Screen Projector during multisite meetings: UDP (User Datagram Protocol) or TCP (Transmission Control Protocol). UDP increases speed but can cause pixilation. TCP can increase reliability. UDP is the default.	

Connect Brio to a Network

Use the network settings on the Network tab to connect a Brio to the network.

Two networks can be set up using the Network 1 and Network 2 connectors on Brio.

If a Brio is only connected to one network, it must be connected using the Network 1 connector on Brio. The Network 1 tab in LAN settings is used to assign the LAN settings for the network connected to the Network 1 connector. To host or attend a multisite meeting, you must use the network associated with the Network 1 connector.

The Network 2 tab in LAN settings is used to assign the LAN settings for the optional network connected to the Network 2 connector. If this optional network is set up, users connected to either

network can share sources. Users connected to Network 2 have limited access to Brio. They can only connect devices to Brio. They cannot access the Meeting Manager.

Note: If the Brio is connected to two networks, the networks must be on different subnets.

1. Connect Brio to the network that will be used by meeting participants or setup the PtP Option connection (follow the steps on the right).

- ① From the factory, Brio defaults to DHCP (Dynamic Host Configuration Protocol). However, if a DHCP server is not available, the IP address defaults to **192.168.1.100**. These default settings are displayed when Brio is powered on. These settings must be reconfigured for your LAN. Contact your network administrator.



For meeting attendees to participate in a meeting with another Brio, their device must be connected to the network on the same subnet connection or the same WAP (Wireless Access Point) as the Brio hosting the meeting. If you are offsite at another location the brio will need be on a network sharing service such as a VPN (Virtual Private Network) or MPLS (Multiprotocol Label Switching).

Wired Connection:

1. Connect an Ethernet cable to the **Network 1** connector (supports 1000BASE-T Ethernet) on the back of the unit.
2. Connect the other end to your LAN.
 - ① The network switch must be a 10/1000 Gigabit network switch. Enabling multicast on the switch is recommended to allow search capability for Network Projector and AirPlay.
3. Using the Brio System Settings, assign an IP address to communicate with your network or enable DHCP.
 - ① To avoid changes to the IP addresses, use static IP addresses.

PtP (point-to-point) Option using optional wireless adapter:

When you setup the PtP option, you are creating a Wireless Access Point (WAP).

A default wireless network has been set up so you can connect a wireless device. To modify the settings for this default network:

1. Insert the wireless adapter you purchased with your unit into a USB port on Brio.
2. From a browser, type **192.168.173.1** (Brio's default IP address for a wireless-capable unit) in your Web browser address field.
3. From your wireless device, connect to Brio's default wireless network as follows:
Name: serial number of your Brio (found on the label on the bottom of the unit).
Password: password
4. Use the Brio's PtP Settings to assign a new name and password for your Brio's wireless network.

Software Tab

Administrators use this tab to view or update the software and firmware versions and software licensing options.

CHKISTIE®

Brio

System Settings

Main

Software

Security

License Settings

Enabled: 3/6/2014

Basic

Multisite

Wireless

Software

Version

0.100.121

Firmware

Version

11.23.19.7

Check for updates online

Use the Internet to check if there are any updates to your license, software and/or firmware.

Check for updates

Manual Updates (offline)

Manual updates require you to have the necessary files (for example: a .BFW or .LIC file).

Update Software/Firmware

Apply your (.BFW) file

Select local .bfw file

Update License

1. Fill out a [license request form](#).

2. Save and send the request to brio-licenses@christiedigital.com.


3. When you receive the new license file, apply it (below).

Apply your (.LIC) file

Select a local .lic file

Your Settings

License	Displays the current license (Basic, Multisite, and/or Wireless) and date the license was enabled.
Software version	Displays the current software version.
Firmware version	Displays the current firmware version.
Check for updates	<p>Automatically checks for updates for the license, software, and firmware.</p> <p>Click Check for updates and respond to the prompts. If an update is started, a progress bar displays the status of the update.</p> <p>① The Brio has to be connected to the Internet and port 21 must be open.</p> <div> <div>CAUTION</div> <div>During a software update, ensure power and an Internet connection is reliably applied to the unit during the entire process. Failure to do this may cause problems with the software and possibly make the Brio inoperable.</div> </div>

Manual Updates (offline)	
Update Software/Firmware	<p>Manually updates the software version.</p> <ol style="list-style-type: none"> 1. Click ... and select the desired .BFW file from your personal device. 2. Click Apply New Software. A progress bar displays the status of the update. <p> CAUTION During a software update, ensure power is reliably applied to the unit during the entire process. Failure to do this may cause problems with the software and possibly make the Brio inoperable.</p>
Update License	<p>Manually updates the software license if you purchase additional Brio options (e.g., PtP (Point to Point) and multiple site meetings).</p> <p>To activate one of these options when the Brio is not connected to the Internet, send a request to update your license as follows:</p> <ol style="list-style-type: none"> 1. Click License Request form. 2. Complete the request form. 3. Click Save. The file is saved in the default documents area of the connected device. 4. Email the form to support at: brio-licenses@christiedigital.com 5. When you receive the license from support, click ... (near the Apply your (.LIC) file field). 6. Select the file you received from support, and then click Apply New License.

Security Tab

Use this tab to set the Admin password that is used to access the System Settings page, to set the password for security with no expiration time, and to set the options to override the session security. Session security is set using the Security link on the Meeting Manager. The security options include:

- Set security with no expiration time.
- Resetting the session security when Brio is restarted (either by using the power button or the Settings → Restart option on the Meeting Manager).
- Resetting the session security when there is no activity on the Brio for a set amount of time. Activity includes source activity (videos, looping PowerPoint presentations, etc.), no Network Projectors connected, no Brio Screen Projectors connected, and no meetings in progress.
- Ending the session security from the Security tab by selecting the **End Security** button.

CHKISTIE™

Brio

System Settings

GeneralNetworkSoftwareSecurity

Security Settings

Administrative Password

Password

[Change Password?](#)

Session Password

☒ Set security with no expiration time

Password

☐ Reset session security on Brio restart.

☐ Reset session security when inactive for minutes.

Cancel

Save

Admin Password

Password	The administrator password for security. The default password is admin . This password should be changed when the administrator sets the system settings. The password must have a minimum of four characters.
Confirm	Reenter the password.

Security Override

Set security with no expiration time	<p>Enables security to be set without a time limit. A password is required to activate this feature. The password must have a minimum of four characters.</p> <p>To end security, clear the check box and select Save.</p> <p>When this option is selected, the other reset security options are not available.</p>
Reset session security on Brio restart	Overrides the session security when the Brio is restarted.
Reset session security when inactive for <i>n</i> minutes	<p>Overrides the session security when there is no activity on the Brio for a set amount of time. If this option is selected, you must enter an inactivity time (<i>n</i>).</p> <p>Activity includes source activity (videos, looping PowerPoint presentations, etc.), no Network Projectors connected, no Screen Projectors connected, and no meetings in progress.</p>
End Security Session	Click to immediately end session security.
Session password	Set the session password for persistent security. This field is only available when the Enable persistent security option is selected.

Mounting Options

Using an optional mounting kit, the unit can be rack mounted, desk mounted, or mounted behind a monitor.

⚠ CAUTION

Regardless of the mounting method chosen, care should be taken to ensure that airflow is unobstructed at the front and back of the shelf. Air flows from the bottom front to the rear top.

Mount Brio in a Rack

Tools and equipment required: screws (provided), rack mounting bracket (provided), and standard tool kit.

The unit can be mounted in a standard 19-inch equipment rack using the mounting brackets (ears) and screws provided in the install kit.

1. Attach the rack mounting brackets to the unit using the 4 small screws (8-32 x 3/8) provided in the install kit.

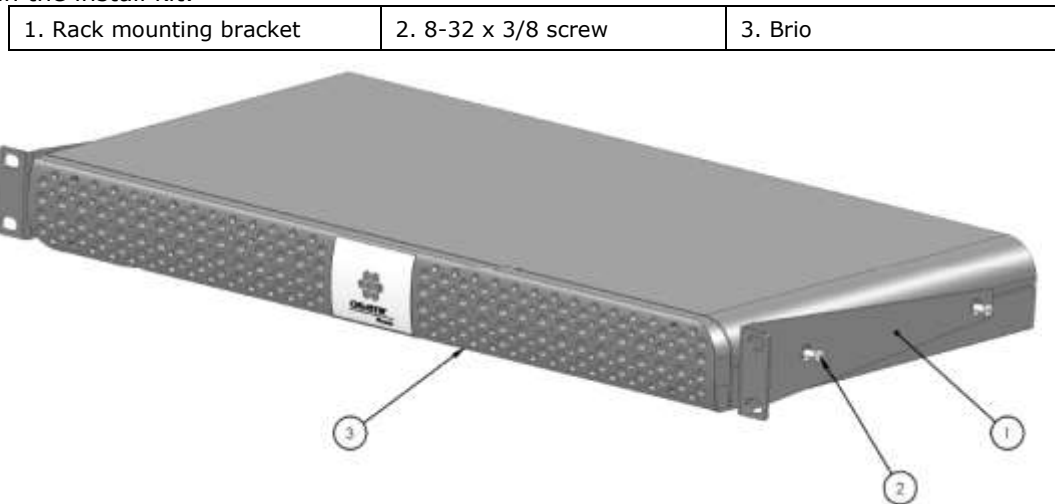


Figure 1 - Rack Mounting Brackets

2. Attach the rack mounting brackets to the rack rails using the four large screws (10-32 x 3/4) provided in the install kit.
3. Install additional units following the above steps.

Mount Brio under a Desk

Tools and equipment required: screws (provided in optional bracket kit), mounting brackets (provided in optional bracket kit), and standard tool kit.

The unit can be mounted under a desk or other flat surface using the optional Under-Desk bracket kit.

1. Attach the mounting brackets to the unit using the four small screws (8-32 x 3/8) provided in the kit.

1. Rack Ear	2. 8-32 x 3/8 screw	3. Brio
-------------	---------------------	---------

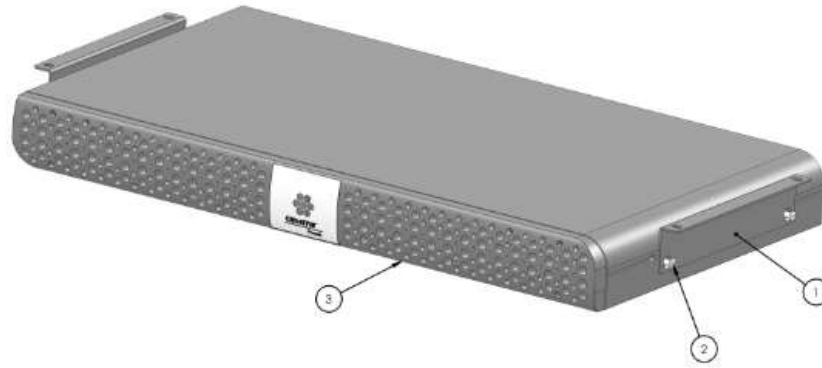


Figure 2 - Under Desk Mounting Brackets

2. Attach the mounting brackets to the underside of the desk using the appropriate hardware.

Mount Brio behind a Monitor

Tools and equipment required: screws (provided in optional bracket kit), mounting brackets (provided in optional bracket kit), and standard tool kit.

The unit can be mounted behind a monitor using the optional VESA 1 or VESA 2 bracket kit.

Mount Brio using the VESA 1 Kit

1. Attach the bracket to the unit using the four small screws (8-32 x 3/8) provided with the brackets.

1. Monitor, 100 mm or 200 mm mounting	2. Mounting bracket
3. 8-32 x 3/8 screw	4. Brio

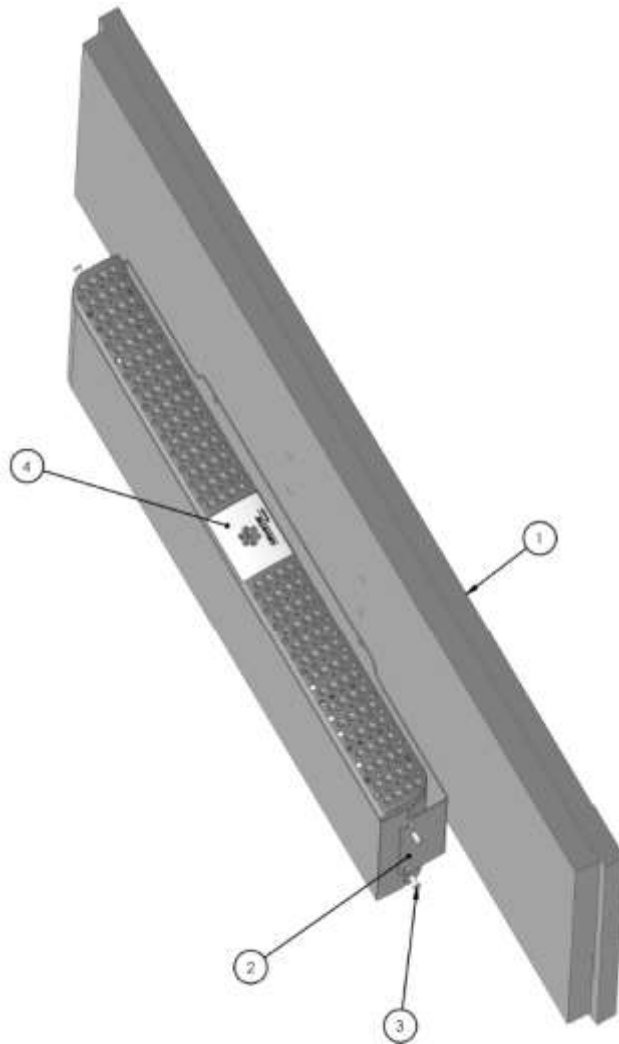


Figure 3 – VESA 1 Mounting Brackets

2. Attach the bracket to the monitor using the appropriate hardware.

① You can re-use the screws that secured the monitor stand.

Mount Brio using the VESA 2 Kit

1. Attach the bracket to the monitor using the stand mounting screws.
2. Attach the bracket to the monitor stand using the appropriate hardware.

1. Monitor stand	2. Monitor, 100 mm or 200 mm mounting	3. VESA 2 bracket
4. 8-32 x 3/8 screw	5. Stand mounting screw	6. Brio

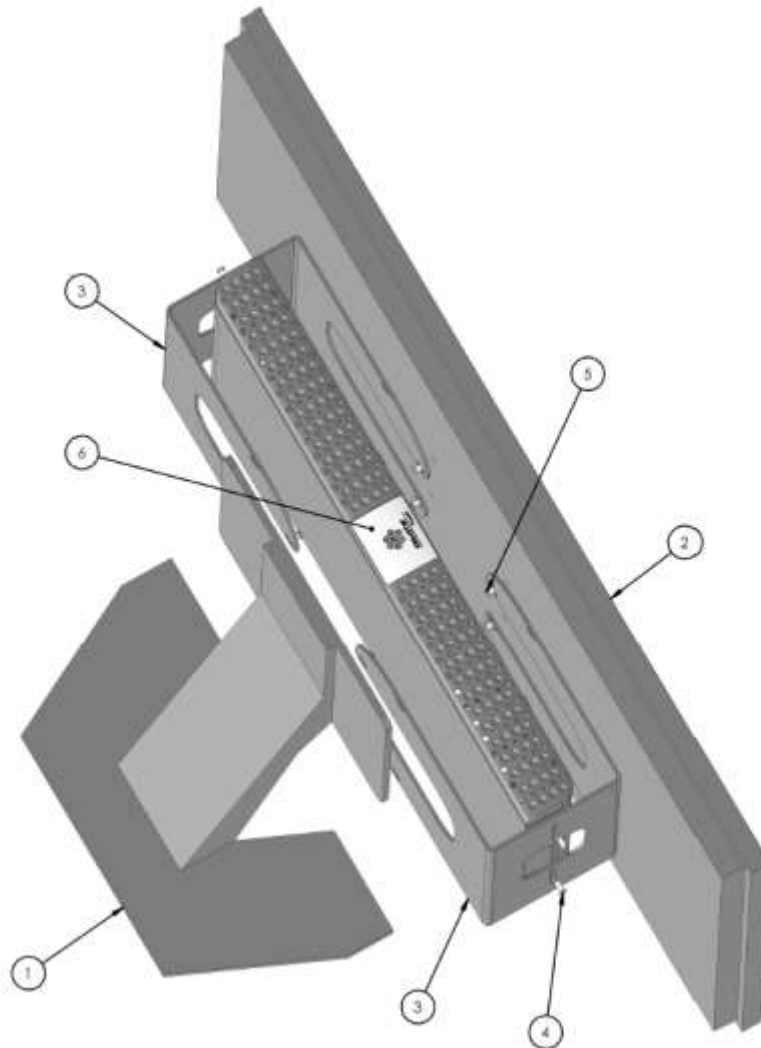


Figure 4 – VESA 2 Mounting Brackets

3. Attach the unit to the bracket using the four small screws (8-32 x 3/8) provided with the bracket.

Cable and Power Connections and Status LED

All of the connections for Brio are on the back of the unit.

The front of the unit has a status LED.



Figure 5 - Front View

When the LED indicator on the front of the unit is solid green, the unit is ready. The LED flashes when the unit is powering on.

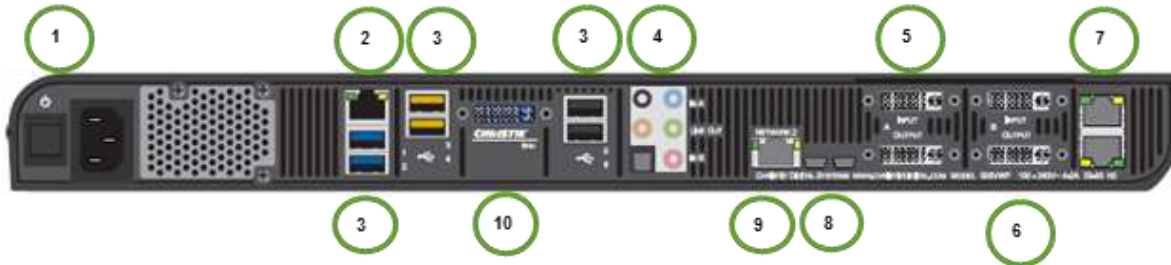


Figure 6 - Back View

❶ All connections to the unit should be connected before starting Brio.

The connectors include the following:

Table 1 — Power and Cable Connectors















Callout	Connector	Label	Graphic	Usage
	Power Cord Connector	None		Connects the unit to a power source.
1	Pushbutton Power Switch			Powers the unit on and off.
10	DVI-I Video Female Connector (blue)	None		Only used when working with support personnel. Otherwise, this connector should not be used.
2	1000BASE-T Ethernet Connector	Network 1		Connects Brio to the primary network. The yellow LED is an activity LED that blinks when there is Ethernet activity. The green LED is on when a link is established at 1000Mbps. Otherwise it is off.
3	Dual USB Connectors	1  2 		Connects USB-compatible devices to the unit.

Table 1 — Power and Cable Connectors

Callout	Connector	Label	Graphic	Usage
4	Audio Connectors	In A (1 black, 1 blue) Line Out (1 orange, 1 green) In B (1 pink)		Connects audio to the unit.
				Black In A Currently not used.
				Blue In A Connects the audio for the source connected to the Input A connector on the unit.
				Orange Line Out Currently not used.
				Green Line Out Plays audio from one of the sources.
				Pink In B Connects the audio for the source connected to the Input B connector.
5	Dual DVI-I Video Female Connectors	Input A and B		Connects DVI Input sources to Brio.
6	Dual DVI-I Video Female Connectors	Output A and B		Connects displays to Brio.
7	RJ45 Connectors			Currently capped and not used. Reserved for future use.
8	Dual USB Mini Connectors			Currently capped and not used. Reserved for future use.
9	1000BASE-T Ethernet Connector	Network 2		Connects Brio to the secondary network. The yellow LED is an activity LED that blinks when there is Ethernet activity. The green LED is on when a link is established at 1000Mbps. Otherwise it is off.

Periodic Maintenance

This section contains information on tasks that you should perform to maintain your unit.



The Brio does not have any user-serviceable internal parts. For issues not covered in this document, or if you are having problems with your unit, contact the support center (<http://www.christiedigital.com/en-us/product-support/support-offices/Pages/default.aspx>)

Task	Schedule
Update software.	When advised
Remove any accumulated dust at the rear panel slots while the unit fans are running.	Periodically

Safety Precautions

The following are the safety precautions for Brio.



This symbol indicates the presence of “dangerous voltage” within the product enclosure that may be significant enough to cause a risk of electrical shock.

- Read, follow, and keep all instructions.
- Follow all warnings and instructions marked on the product and in the related documentation.
- Do not use this apparatus near liquids. Do not place objects containing liquids on top of or near the unit. Never spill liquid of any kind on the product.
- Never push objects of any kind into this product through cabinet slots, since they may touch dangerous voltage points or short out parts resulting in the risk of fire or electric shock.
- Clean only with a clean, lint-free, and dry cloth. Do not use abrasive cleaners or solvents.
- Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles (electrical receptacles), and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, take caution when moving the cart/apparatus combination to avoid injury or serious damage to the product from the cart tipping over.
- If an extension cord is used with this product, make sure that the total ampere ratings on the products plugged into the extension cord do not exceed the extension cord ampere rating.
- Do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltage points and/or other risks, and may void your warranty. Refer all servicing to Authorized Service Personnel.
- Unplug the apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Operate the equipment under the following conditions:
 - Operating temperature range: 5°C to 40°C (41°F to 104°F)
 - Storage temperature: -20°C to 60°C (-4°F to 140°F)
 - Relative humidity: 10-85% non-condensing
 - Operating altitude: maximum of 2000 m (6562 ft) above sea level
- Avoid installing this product in an area that is exposed to excessive dust.

Warnings

SBC Battery Warning



The battery in Brio is not intended to be replaced by the user. Failure to follow these instructions voids the warranty of the unit.

There is danger of explosion if the battery is incorrectly replaced.

Replace only with the same or equivalent type of battery.

Service Warning



The unit has no field-serviceable parts. The enclosure surrounding the unit should not be removed. Failure to follow these instructions may void the warranty.

For protection against the risk of electrical shock, always disconnect all cables from the wall outlet before servicing, modifying or installing the equipment.

Class I Construction Warning



An apparatus with Class I construction shall be connected to a MAINS socket outlet with a protective earthing connection.














Labeling Glossary

Table 2 — Symbols

	This symbol indicates the hardware is RoHS compliant.	 	These symbols warn where potentially hazardous voltages exist.
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Product Compliance

The hardware has been tested and certified to be compliant as follows:

Table 3 — Compliance			
Country	Mark	Country	Mark
Australia		Norway –	
Canada		REACH	
China		ROHS II	
Japan		Russia GOST-R	
Korea		Saudi Arabia	No Marking Requirement
Kuwait	No Marking Requirement	South Africa	No Marking Requirement
Member states of the European Union		Ukraine	
Mexico		United States	

End-of-Life Disposal

Properly recycle the Brio unit when it is permanently removed from service. This product has been designed such that a large percentage of the product material can be recycled. Follow local and/or national regulations regarding disposal of electronics equipment.

Appendix A Brio Specifications

Brio		Network Streaming Appliance
Chassis		1U form factor
		Optional mounting brackets (ears)
		Optional under table mount
		Optional VESA “sandwich” mount
Outputs	Dual DL-DVI (digital only)	Up to 2560x1600 resolution per output
	3.5 mm stereo audio	Analog stereo audio
Inputs	Dual DL-DVI (digital only)	From 320x240 to 1920x1080 encoded to H.264
		Support for HDCP (High-bandwidth Digital Content Protection)
	Dual 3.5 mm stereo audio	Analog stereo audio
Network	Dual Gigabit Ethernet	1000 Mbps Ethernet, RJ45 connectors Support for IGMPv2, IPv4, IPv6, RTSP, SRTP, HTTP, TCP/IP
		Support for IGMPv2, IPv4, RTSP, SRTP, HTTP, TCP/IP
Encoding		2 high definition DVI inputs to L5 H.264 video streams at 30 FPS
		2 stereo audio streams
Physical Specifications		(W x H x D) 17.40” x 1.74” x 9.5” (442x44x241mm)
		6.5lbs. (2.95kg)
Power		100-240VAC 50-60Hz (auto-ranging power supply)
		4-2A (max)
		220W (max)
		750 BTU/hr (max)
Reliability	MTBF	>50,000 hours for major modules
Regulatory safety	<ul style="list-style-type: none">• CAN/CSA C22.2 No. 60065• UL 60065• IEC 60065 emissions• FCC CFR47, Part 15, Subpart B, Class A –unintentional radiators• EN55103-1 Class A audio, video, audio-visual equipment emission; EN55103-2 audio video, audio-visual equipment immunity; EN61000-3-2, EN61000-3-3• Directives: (EC) 2011/65/EU (RoHS); 2012/19/EU (WEEE); Regulation (EC) No. 1907/2006 (REACH)• Certification marks (check with Christie for latest update): cULus (Canada & US), CE (EU), CCC (China),• GoST-R (Russia), KC (Korea), S-Mark (Japan), C-Tick (Australia & New Zealand), Ukraine	
Manufacturing location	Designed, manufactured, and tested by Christie Digital Systems Inc. at our facility in Phoenix, Arizona, USA	
Warranty	Limited two years parts and labor.	

Appendix B Ports used by Brio

The following ports are used by Brio:

Port	Service	Description	Type
5297	AirPlay	Used for AirPlay.	TCP
7000	AirPlay	Used for AirPlay.	TCP
7100	AirPlay	Used for AirPlay.	TCP
8888	Application	TCP server runs at port 8888 on the local IP address.	TCP
11123	Brio to Brio Communication	This connection maintains communication links between Brios.	TCP
15000-17000	Brio to Brio Communication	Brio to Brio meetings.	UDP/TCP
3689	DAAP	Used for AirPlay audio.	TCP
11135	External Control Server	Used for 3 rd party external control systems.	TCP
21	FTP	Used for automatic software updates.	TCP
80	HTTP	Used for the Meeting Manager and AirPlay.	TCP
443	HTTPS	Used for AirPlay.	TCP
49159	mDNS	Used for AirPlay. Requires multicast.	UDP
49163	mDNS	Used for AirPlay. Requires multicast.	UDP
5298	mDNS	Used for AirPlay.	UDP/TCP
5353	mDNS	Used for AirPlay. Requires multicast.	UDP
5354	mDNS	Used for AirPlay. Requires multicast.	UDP
3702	Multicast	Visible from IP 224.0.0.0 to 239.255.255.255. Used for searching for Network Projector and AirPlay sources.	UDP
5350	NAT Port Mapping	Used for AirPlay.	UDP
137	Netbios-ns	NetBIOS name service.	UDP
5363	net-projection	Used for Windows Network Projection.	UDP/TCP
36669-36999	RAOP (Remote Audio Output Protocol)	Used for AirPlay.	TCP
10000-17000 (video) 10001 (audio)	RTP	The RTP port defines a standardized packet format for delivering audio and video over IP networks.	UDP
554	RTSP	RTSP is a network control protocol used for establishing and controlling media sessions between the controller and the source.	UDP/TCP
1900	SSDP	Used for AirPlay.	UDP
50100-50200	Unicast	Brio Screen Projector.	UDP/TCP
8888	Unicast	Microsoft Network Projector	HTTP/UDP/TCP

Appendix C Port Authority

Port Authority is a utility that helps system administrators check network settings. It provides feedback to the administrator to help set up the network for Brio.

Port Authority performs the following:

- Checks if port 3702 is open.
- Checks if port 8888 is open.
- Writes an exception to your local windows firewall for traffic on port 3702 and port 8888.
- Checks if multicast is enabled.

If any of the above fail, a message pertaining to the status and a tip on how to proceed is shown in the Status messages.

Detailed exception messages are displayed if any of the following occur:

- Network timeout exception
- Network disconnect
- Socket exception due to corrupted messaging

If everything is set up correctly with your network, you can use Port Authority to:

- Select **Connect** to broadcast a network multicast discovery message.
- Select **Parse** to retrieve a list of Brio IP addresses from the reply.
- Select, and then test-connect to each of the Brio addresses to retrieve the Brio's given name.

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